

# (12) United States Patent

## **McIntyre**

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## (54) ROTARY PUMP WITH SLIDING CRESCENTOID ROTOR BODIES

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- (52) **U.S. Cl.** ...... 418/142; 418/54
- (58) Field of Classification Search ...... 418/142, 418/54

See application file for complete search history.

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## ABSTRACT

A rotary pump device includes a stator chamber with a cylindrical inner wall having intake and exhaust ports therein, and a two-part, expanding rotor eccentrically mounted for rotation within the chamber. The rotor comprises two crescentoid bodies with end surfaces in sliding, mating contact. A spring rod is placed between the inner rotor body surfaces to maintain rotor contact points in continuous wiping contact with the chamber wall. A full intake/exhaust cycle occurs every 180° of rotor travel.

## 11 Claims, 3 Drawing Sheets

